AN OPEN LETTER OF INFORMATION ON MUSKRATS

The things that are most necessary for the success of a muskrat farm are:

1. Food Supply or "Pasturage"

There should be some food that the muskrats can get at during the winter beneath the ice. The Yellow Water Lily and Bulrush will usually grow in sufficiently deep water so that they answer this purpose of a winter food supply. Muskrats also feed on clams during the winter. The source of food during the balance of the year, spring, summer and fall, is the Cattail, Sweet Flag, WildRice, Wapato or Duck Potato, sometimes called "Muskrat Potato", are all eaten in addition to the two already named. The tubers of the Wapato are sometimes found in muskrat houses where they are stored by the rats as a winter food supply.

2. The food supply settled, it is important also that the muskrats should have suitable living conditions. This means that there must be a certain amount of grasses or cover, which of course would be afforded to a considerable extent by the Wild Rice, Cattail, Sweet Flag, Bulrush and other growth that would be planted for food. They must also have suitable material for building their houses or banks in which they may dig and make their dens. Any high banks or ridges along an overflow could undoubtedly be used by muskrats for their dens. Wild Rice, Cattail, Bulrushes and Sweet Flag all afford considerable material for building houses in addition to cover and food.

3. The question of cover and living quarters settled, it is important that a sufficient depth of water be maintained during the winter so that the ice does not freeze down to the bottom, for muskrats go out beneath the ice from their living quarters to forage beneath the ice for a food supply. The freezing to the bottom cuts off the food supply of the muskrats. During the winter they come out in search of food and it is lack of food more than anything else that causes the muskrats to run away or leave. Some winters you no doubt have noticed the muskrats will be running all over a marsh and migrate across the fields. This is because of the ice freezing down to the bottom. Muskrats then get to be what we call "runners".

4. With these other things taken care of, there still remains the question of protection for the muskrats. Probably the greatest natural enemy of the muskrat is the mink. They kill whole families of muskrats. Therefore, it should be made a rule to trap or shoot a mink on sight any time during the year, if you desire to make a success of the muskrat proposition, for the two will not get along together at all. Also, because of the mink destroying ducks and any other birds that they may come across, we believe that mink should be given no protection -- rather there should be a bounty paid on his scalp. The only other problem of protection that one has to deal much with, aside from the ice freezing to the bottom and driving the muskrats out during the winter in search of food, are sudden rises of water during the spring months which often drive out the rats. Of course, stray dogs and possibly wolves have a habit of digging into the houses and destroying both the old and young.

In the above I have tried to outline some of the conditions needed to make a muskrat farm ideal. Answering your questions, I should think that overflowed land with a certain amount of shallow water from one to three feet deep and with channels up to five or six feet deep here and there throughout the area, providing it had banks for muskrat dens, and cover and food were introduced, would make a good place for muskrats. I would start the food and cover supply first, because this is the first essential and the plants will do better before the muskrats become numerous -- in other words, they would get a better start. As the food supply becomes more abundant, conditions are such that the area will support a larger number of muskrats, and if no trapping is carried on a few seasons to begin with, the entire area will become plentifully stocked with muskrats, providing the enemies of muskrats mentioned above are kept under control. Possibly some of the many islands you mention have high banks in which muskrats can build their dens.

It is probable that the rats already in the territory will spread and increase, especially if they were not trapped for two or three seasons, and the food supply and conditions were suitable to permit this. Conditions being favorable as outlined above, it is reasonable to believe that muskrats that have for various reasons been driven out of ~~wax~~ other waters would stop and stay on these lands when they came to them. It is probable that such food plants as are native to the region would gradually spread to parts of the overflow, but this is often a slow process, and can be hastened by planting small beds of the plants needed for food and cover here and there on the property.

Regarding the raising and lowering of the water as mentioned above; the unfavorable point aboutthis is that the young rats are drowned out by the waters rising in the spring. A rise or fall of two feet in depth of water during the growing season would possibly not be seriously injurious to the plants, but this is about the limit. However, during the winter and spring up until about June 1st, when the flood usually occurs, the water may be almost any depth without injuring the plants that are dormant during that time.

Yours for a profitable muskrat marsh,

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MUSKRATS:

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Quotations From " Raising Fur-bearing Animals"
By Hardison Patton, Chapter on Muskrats.

p. 95.

The number of muskrats that may be raised in any sized space is entirely dependent upon the amount of food furnished, or upon the natural supply of it.

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A natural food supply should exist during the spring and summer, to give the young growing animals something to work for, contributing the needed exercise to develop their bones and body This requirement is best met by planting vegetation within the enclosure around the watered portions, and in the water. Wild rice, water lilies, cat-tails, etc., are very good for the water vegetation. *** Jerusalem Artichokes** are also very good for this purpose; they will need no further attention after they have once been planted in naturally rich or well fertilized soil; the muskrats will dig them out as they want them during the winter.

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Muskrats are probably the most prolific fur-bearing animals known in the United States,

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"The height of the breeding season for muskrats is in the early spring, but they breed, to some extent, during almost any time of the year. Young ones not more than five or six days old have been seen in their nests in February. Muskrats usually breed from three to five times a year:*** it is believed that at least four litters may be averaged under this system, in which the number of young would be from three to fifteen each or an average of about eight.

The young of early spring will mature sexually, and bring litters in the fall of the same year in which they are born. The young in all mid-summer litters are considerably greater in number than they are in spring, fall or winter litters.

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They mature sexually at about four months of age, when they will breed and bring their litters twenty-one days later.

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"muskrats do not reach a #superior" prime condition until the spring following their birth neither do they attain full growth before that time.

Muskrat raising is a gold mine for anyone who will earnestly devote his efforts to its unlimited possibilities. The yearly production is enormous and nearly all profit. ***

FEEDING

Muskrats are vegetarians. They live on grass, grass roots, water plants of all kinds, tender bark of twigs, small shrubbery, tender bark of pine sprouts, alder or willow. They will eat almost any kind of vegetation that grows in the garden, as cabbage, lettuce, kale, potatoes turnips, celery, parsnips, carrots, beets and their tops. They are also fond of onions, squash, melons, pumpkins, cantaloupes, wild rice rape, wheat, oats, corn, barley, water lilies, cat tails, grain chops clover, alfalfa and all kinds of fruit. They will also eat bread of any kind.

Cabbage, kale or rape to be fed fresh not wilted or frozen.
Constant grain diet may cause Blindness. If feeding grain give some bacon rind, pork or lard -- this also prevents cannibalism.
Diversity food. Keep salt available to them.

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For two or three weeks before muskrats are to be pelted for their furs, they should be fed liberally with carrots, or sugar beets. These bring out the fur making it wonderfully silky or glossy. Flax seeds mashed up with other foods are also excellent fur developers.

p. 114

Food soaked in lime water and fed to nursing mothers "assures building of big strong bones.

117: Kerosene on water in which they swim destroys lice and vermin.

p.456 A little molasses fed on the food for fur animals makes fur glossy

p. 458 Cold winds and hot sun rays kills muskrats.

p. 460. Mulberry trees and elderberry bushes should be planted in pens of fur-bearing animals; they are [illegible] fond of these berries and the trees furnish shade for the animals.